IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Assignee ..... Hewlett-Packard Development Company, L.P.
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Title: Imaging Apparatuses, Image Data Processing Methods, and Articles of Manufacture

CORRECTED BRIEF OF APPELLANT

To: Mail Stop Appeal Brief-Patents
Commissioner of Patents
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Appellant appeals from the Office Action mailed November 1, 2007 (hereinafter "Office Action" or "Action"). The Commissioner is authorized to charge the fee required under 37 C.F.R. § 41.20(b)(2) to Deposit Account No. 08-2025.

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I. REAL PARTY IN INTEREST

The real party in interest of this application is Hewlett-Packard Development Company, L.P. as evidenced by the full assignment of the pending application to Hewlett-Packard Development Company, L.P. recorded starting at Reel 014347, Frame 0661, in the Assignment Branch of the Patent and Trademark Office. The Hewlett-Packard Development Company, L.P., is a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

Appellant, Appellant's undersigned legal representative, and the assignee of the pending application are aware of no appeals or interferences which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-11, 15-22 and 27 are pending, stand rejected, and are appealed. Claims 24-26 are withdrawn from consideration and claims 12-14 and 23 are canceled.

IV. STATUS OF AMENDMENTS

No amendments have been filed after the Office Action mailed November 1, 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Concise explanations of the subject matter defined in each of the independent claims and argued dependent claims involved in the appeal follow with respect to exemplary illustrative embodiments of the specification and figures.

Referring to independent claim 1, an optical device is described at page 9, line 1 of the specification and shown in Fig. 4B according to one embodiment. An

image sensor is described at page 6, line 10 and shown in Fig. 2 according to one embodiment. Color sensor arrays are described at page 6, line 12 and line 25 and shown in Figs. 3 and 3A according to one embodiment and include a plurality of image sensor elements described at page 8, line 12 and shown in Fig. 4A according to one embodiment. Processing circuitry is described at page 3, line 31 and page 5, line 4 and shown in Figs. 1 and 2 according to example embodiments.

Referring to independent claim 10, an image sensing means in the form of an image sensor is described at page 6, line 10 and shown in Fig. 2 according to one embodiment. Color sensor arrays are described at page 6, line 12 and shown in Figs. 3 and 3A according to one embodiment and include a plurality of sensor means in the form of image sensor elements described at page 8, line 12 and shown in Fig. 4A according to one embodiment. Processing means in the form of processing circuitry is described at page 3, line 31 and page 5, line 4 and shown in Figs. 1 and 2 according to example embodiments.

Referring to claim 11, a shift of layers of the sensor means is described at page 8, line 9 and shown in Fig. 4A according to one embodiment.

Referring to independent claim 17, providing image data using an image sensor is described at page 6, line 10 and shown in Fig. 1 according to one embodiment. Receiving light is described at page 6, line 10 and page 9, line 1 and shown in Fig. 4B according to one embodiment. Providing the light into light components using an optical device is described at page 9, line 1 of the specification and shown in Fig. 4B according to one embodiment. Receiving the light components using color sensor arrays is described at page 9, line 4 of the specification and shown in Fig. 4B according to one embodiment. Generating image data using an image sensor is described at page 6, line 10 and shown in Fig. 1 according to one embodiment. Accessing image data is described at page 3, line 31 and shown in Fig. 1 according to one embodiment. Forming an image having increased resolution is described at page 9, line 12 and shown in Fig. 5 according to one embodiment.

Referring to dependent claim 22, an optical device is described at page 9, line 1 of the specification and shown in Fig. 4B according to one embodiment.

Referring to independent claim 27, processor-usable media is described at page 5, line 31 and shown in Figs. 1 and 2 according to one embodiment.

Accessing image data is described at page 3, line 31 and shown in Fig. 1 according to one embodiment. Forming an image having increased resolution is described at page 9, line 12 and shown in Fig. 5 according to one embodiment.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. The 102 rejection of claims 1-7 and 9 over Colvocoresses.

B. The 102 rejection of claims 10-11 and 15-16 over Colvocoresses.

C. The 102 rejection of claim 27 over Colvocoresses.

D. The 103 rejection of claims 17-22 over Colvocoresses and Akami.

E. The 102 rejection of claim 11 over Colvocoresses.

F. The 103 rejection of claim 22 over Colvocoresses and Akami.

VII. ARGUMENT

A. Positively-recited limitations of claims 1-7 and 9 are not disclosed nor suggested by Colvocoresses and the 102 rejection is in error.

Referring to the anticipation rejections, Appellants note the requirements of MPEP §2131 (8th ed., rev. 6), which states that TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM. The *identical invention* must be shown in as complete detail in the prior art as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). *The elements of the prior art must be arranged as required by the claim*. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Independent claim 1 recites *an optical device configured to receive light and to provide a plurality of color components of the received light* in addition to the positively-recited limitations of the image sensor.

The Office fails to identify specific teachings of U.S. Patent No. 4,765,564 to Colvocoresses (hereinafter "Colvocoresses") which allegedly disclose the above-recited limitations and relies upon almost the entire teachings of the Description of

the Preferred Embodiment of Colvocoresses including col. 3, line 4 – col. 4, line 42 and col. 4, line 55 – col. 6, lines 32 as well as Figs. 2b, 3b, 5 and 7.

The Office merely states that an "optic means" of Colvocoresses teaches the optical device of claim 1. Appellants have electronically searched an entirety of the Colvocoresses reference and failed to uncover any reference to an optic means in the text of Colvocoresses. Fig. 1 of Colvocoresses teaches "optics" receiving light before the "detectors" but Appellants have failed to uncover any teaching that the generic reference to optics of Fig. 1 discloses the claimed *optical device configured to receive light and to provide **a plurality of color components** of the received light* in combination with the specifically recited image sensor.

The Office relies upon the teachings of Fig. 2B. However, Fig. 2B depicts a layout of the sensor which fails to teach or suggest the optical device configured *to provide a plurality of color components of the received light* which is positively-claimed *in addition to the image sensor* of claim 1. In addition, Fig. 3B shows an arrangement of a two dimensional array of the detector and fails to teach the claimed optical device in addition to the claimed image sensor. Fig. 5 shows a boundary of a field and fails to teach or suggest the claimed optical device. Fig. 7 refers to "optic means" but fails to disclose that the optic means is configured to provide a plurality of color components of the received light as positively claimed.

Appellants respectfully submit that positively-recited limitations of the claims 1-7 and 9 are not disclosed nor suggested by the prior art for at least the above-mentioned reasons and such claims are allowable.

Appellants also respectfully submit that Akami also fails to teach the above-recited limitations and claim 8 is allowable for the above-mentioned reasons.

Appellants respectfully request allowance of claims 1-9 for at least the above-mentioned reasons.

B. Positively-recited limitations of claims 10-11 and 15-16 are not disclosed nor suggested by Colvocoresses and the 102 rejection is in error.

Independent claim 10 recites *an image sensing means implemented as a **single device***. Independent claim 10 further defines that the image sensing means which is implemented as single device includes *a plurality of color sensor arrays*, the individual sensor arrays comprising a plurality of sensor means for providing image

data for a plurality of pixels of a respective color component at an initial resolution. Furthermore, claim 10 recites that *individual ones of the sensor arrays of the image sensing means implemented as a single device are arranged elevationally over one another in a layered stack of the image sensing means* for individually detecting red, green, and blue components of light, respectively. Claim 10 also recites that the plurality of sensor means of respective *color sensor arrays of the image sensing means implemented as a single device are arranged in an offset relationship with respect to one another in the single device* for defining a plurality of sub-pixels for individual ones of the pixels.

The Office fails to identify specific teachings of Colvocoresses which allegedly disclose the above-recited limitations and relies upon almost the entire teachings of the Description of the Preferred Embodiment of Colvocoresses including col. 3, line 4 – col. 4, line 42 and col. 4, line 55 – col. 6, lines 32 as well as Figs. 2b, 3b, 5 and 7.

The Office states that Colvocoresses teaches the claimed image sensing means implemented as a single device by teaching a single image sensor comprising a plurality of detector arrays. However, the Office fails to identify any teachings of Colvocoresses which teaches a single image sensor comprising plural detector arrays. Appellants have failed to locate any teaching in Colvocoresses of *an image sensing means implemented as a single device and comprising plural color sensor arrays* as specifically claimed in combination with the other limitations regarding the image sensing means of claim 10.

The Office relies upon the teachings of arrays for red, green and blue of Fig. 2B of Colvocoresses as allegedly teaching the claimed color sensor arrays. However, the Office has failed to identify any teachings in Colvocoresses that the array teachings of Fig. 2B disclose a plurality of *arrays of an image sensing means implemented as a* ***single device***. Appellants have failed to uncover any teachings in Colvocoresses that the array teachings of Fig. 2B disclose a plurality of *arrays of an image sensing means implemented as a single device*. Appellants respectfully submit that the generic teachings of Fig. 2B fail to disclose or suggest the claimed image sensing means of claim 10.

The Office states that Fig. 3B teaches that individual ones of the sensor arrays are arranged elevationally over one another in a layer stack. However, the

Office has failed to identify any teachings in Colvocoresses that the array teachings of Fig. 3B disclose a plurality of *arrays of an image sensing means implemented as a single device*. Appellants have failed to uncover any teachings in Colvocoresses that the array teachings of Fig. 3B disclose a plurality of *arrays of an image sensing means implemented as a single device*. Appellants respectfully submit that the generic teachings of Fig. 3B fail to disclose or suggest the claimed image sensing means of claim 10. Appellants have failed to uncover the above-recited limitations in Figs. 5 and 7 of Colvocoresses.

In addition to the above, Appellants have failed to uncover any teachings in Colvocoresses of the claimed limitations of *individual ones of the sensor arrays of the image sensing means implemented as a single device are arranged elevationally over one another in a layered stack of the image sensing means* or that the plurality of sensor means of respective *color sensor arrays of the image sensing means implemented as a single device are arranged in an offset relationship with respect to one another in the single device*

Appellants respectfully submit that numerous positively-recited limitations of the claims are not disclosed nor suggested by the prior art.

Appellants respectfully request allowance of claims 1-9 for at least the above-mentioned reasons.

C. Positively-recited limitations of claim 27 are not disclosed nor suggested by Colvocoresses and the 102 rejection is in error.

Independent claim 27 recites that *the color sensor arrays are offset with respect to one another providing a plurality of image data values for at least one color component for a single pixel location and a sum of the image data values comprising intensity values for a single color component for the single pixel location are equal to an intensity value of the accessed image data for the single color component for the single pixel location*.

The Office fails to identify specific teachings of Colvocoresses which allegedly disclose the above-recited limitations and relies upon almost the entire teachings of the Description of the Preferred Embodiment of Colvocoresses including col. 3, line 4 – col. 4, line 42 and col. 4, line 55 – col. 6, lines 32 as well as Figs. 2b, 3b, 5 and 7.

Appellants respectfully submit that the Office Action fails to present a proper 102 rejection inasmuch as positively-recited limitations of claim 27 are not disclosed nor suggested by the prior art.

Appellants have failed to locate any teachings in Colvocoresses of the positively-recited limitations that *a sum of the image data values comprising intensity values for a single color component for the single pixel location are equal to an intensity value of the accessed image data for the single color component for the single pixel location*. Appellants have failed to locate any teachings in Colvocoresses that a plurality image data values comprising intensity values for a color component for a single pixel location when summed are equal to the intensity value of the accessed image data for the single color component for the single pixel location.

In addition, Appellants have electronically the entirety of Colvocoresses and *failed to uncover any reference therein to intensity*. Appellants have also electronically searched the entirety of Colvocoresses and failed to uncover any reference to summing or the specifically claimed limitations recited above.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the prior art.

Appellants respectfully request allowance of claim 27 for at least the above-mentioned reasons.

D. The Examiner has failed to establish a proper prima facie 103 rejection of claims 17-22 over Colvocoresses and Akami and the 103 rejection is improper for at least this reason.

MPEP 2142 states that the concept of prima facie obviousness allocates who has the burden of going forward with production of evidence in each step of the examination process and the *examiner bears the initial burden of **factually** supporting any prima facie conclusion of obviousness.* MPEP §2142 (8th ed., rev. 6). As discussed in *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,788 (Fed. Cir. 1984), the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability.

Appellants respectfully assert that the positively-recited limitations of the claims are not disclosed nor suggested by the prior art even if the teachings of the references are combined and the 103 rejection is improper for at least this reason.

More specifically, none of the prior art references teach the combination of limitations in claim 17. As noted by the Office, Colvocoresses is void of disclosing the limitations of *providing light into a plurality of light components corresponding to different wavelengths of light using an optical device*. Furthermore, Appellants have failed to uncover any teachings in U.S. Patent No. 3,942,154 to Akami (hereinafter "Akami") of *receiving light components using a plurality of color sensor arrays*. Appellants respectfully submit that the prior art is void of any factually supported proper rationale to combine the references as proposed by the Office and Office has failed to meet their burden of establishing a proper 103 rejection as discussed in additional detail below.

The Supreme Court has stated that *some articulated reasoning with some rational underpinning* to support the legal conclusion of obviousness is needed. *KSR Int'l v. Teleflex, Inc.*, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007). MPEP 2142 (8th ed., rev. 6) further provides that rejections on obviousness *cannot be sustained with mere conclusory statements*; instead there must be some articulated reasoning with some rational underpinning to support a legal conclusion of obviousness and which must be *factually supported* per MPEP 2142.

The Office states that the combination is appropriate to use the prism of Akami so Colvocoresses need not rely solely on color filters to filter out specific colors. Appellants respectfully submit that the rationale fails to meet the above-recited authority for a proper 103 rejection.

The Office alleges that it is obvious to substitute wavelength filtering to provide different light components with use of the prism. However, Appellants have failed to uncover any teachings in Colvocoresses that Colvocoresses is directed towards or concerned with providing different light components of source light by filtering or otherwise. Appellants have electronically searched Colvocoresses and *failed to uncover any teachings in Colvocoresses regarding filtering or providing different light components corresponding to different wavelengths of light*.

Appellants respectfully submit that the rationale for combining the teachings of Akami with the teachings of Colvocoresses is faulty and the 103 rejection is in

error inasmuch as Colvocoresses is void of any teaching to providing light into different components of light corresponding to different wavelengths of the light. Appellants respectfully submit it is non-sensical to modify the teachings of Colvocoresses per the teachings of Akami when the teachings of Akami have not been demonstrated to be applicable to or of any use to the arrangement of Colvocoresses. The Office alleges that the combination is appropriate to modify Colvocoresses to use a prism of Akami to provide different components of light. However, as mentioned above, Appellants have failed to uncover any teachings that Colvocoresses is concerned with providing different components of light or any improvement would result from such a combination.

MPEP 2144 II (8th ed., rev. 6) provides the strongest rationale for combining references is a *recognition expressly or impliedly in the prior art* or *drawn from a convincing line of reasoning based on established scientific principles or legal precedent that some advantage or expected beneficial result would have been produced by the combination*. Appellants respectfully submit that the Office has not only failed to provide any advantage or beneficial result produced by the combination, but has failed to even demonstrate that the teachings of Akami are of any use whatsoever in the arrangement of Colvocoresses.

MPEP 2142 (8th ed., rev. 6) provides that impermissible hindsight must be avoided and the *legal conclusion must be reached on the basis of the facts gleaned from the prior art*. Appellants respectfully submit that the facts of the prior art fail to provide any evidence that Akami is applicable in any way to the disclosed arrangements of Colvocoresses and that the rationale to combine the references is an improper conclusory rationale without proper factual support or rational underpinning and which can only impermissibly result from improper reliance upon Appellant's disclosure.

Appellants respectfully submit that the office has failed to provide an appropriate reasoning with a rational underpinning for combining the references and the Office has failed to establish a proper 103 rejection for at least this reason.

Appellants respectfully request reversal of the 103 rejection and allowance of the claims in the next Action.

E. Positively-recited limitations of claim 11 are not disclosed nor suggested by Colvocoresses and the 102 rejection is in error.

Claim 11 recites (in combination with claim 10) the *plurality of sensor means of respective color sensor arrays are arranged in an offset relationship with respect to one another in the single device and the offset is achieved by a **shift of layers of the sensor means** in the image sensing means which is implemented as a **single device***.

The Office refers to almost the entirety of the Description of the Preferred Embodiment and Fig. 3B as allegedly teaching the above-recited limitations that the *offset is achieved by a shift of layers of the sensor means in the image sensing means which is implemented as a single device.*

Appellants have failed to uncover any teachings in Colvocoresses that Fig. 3B depicts a image sensing means implemented as a single device or that an offset of color sensor arrays of the image sensing means is implemented by a shift of layers of the sensor means in the image sensing means implemented as a single device. To the contrary, Appellants respectfully submit that Fig. 3B is merely an illustrative representation in Colvocoresses of how arrays are offset as opposed to teaching the above-recited limitations of the image sensing means implemented as a single device and fail to disclose layers of the sensor means or the offset of sensor means of the respective color sensor arrays is achieved by the shift of layers of the sensor means in the image sensing means implemented as a single device.

Appellants respectfully submit that positively-recited limitations of the claims are not disclosed nor suggested by the prior art.

Appellants respectfully request allowance of claim 11 for at least the above-mentioned reasons.

F. The Examiner has failed to establish a proper prima facie 103 rejection of claim 22 over Colvocoresses and Akami and the 103 rejection is improper for at least this reason.

Claim 22 recites the *optical device comprises a lens* in combination with claim 17 reciting *using the optical device, providing light into a plurality of light components corresponding to different wavelengths of the light.*

The Office states that Colvocoresses fails to teach or suggest the positively-recited limitations of using the optical device, providing light into a plurality of light components corresponding to different wavelengths of the light. The Office relies upon the teachings of Akami to cure the deficiencies of Colvocoresses with respect to the above-recited limitations. The Office states that col. 3, lines 42-58 of Akami teaches that the optical device is a lens. However, Appellants have failed to uncover any teachings in col. 3, lines 42+ of Akami of the claimed lens, let alone the explicitly-recited limitations of claim 22 defining *using the optical device comprising a lens, providing light into a plurality of light components corresponding to different wavelengths of the light*.

Appellants respectfully submit that positively-defined limitations of claim 22 are not disclosed by the prior art even if the references are combined and the Office has failed to establish a proper 103 rejection for at least this reason.

Appellants respectfully request reversal of the 103 rejection and allowance of claim 22 in the next Action.

G. Conclusion

In view of the foregoing, reversal of the rejections of the claims is respectfully requested. For any one of the above-stated reasons, the rejections of the respective claims should be reversed. In combination, the above-stated reasons overwhelmingly support such reversal. Accordingly, Appellants respectfully request that the Board reverse the rejections of the claims.

Respectfully submitted,

Date: 6/16/08 Attorney: _____

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VIII. CLAIMS APPENDIX

1. [Previously Presented] An imaging apparatus comprising:

an optical device configured to receive light and to provide a plurality of color components of the received light;

an image sensor including:

a plurality of color sensor arrays arranged elevationally over one another and configured to receive respective ones of the color components, and the color sensor arrays individually comprising a plurality of sensors configured to provide image data for a plurality of pixels of a respective one of the color components at an initial resolution; and

wherein the plurality of color sensor arrays overlap and are offset with respect to one another to define a plurality of sub-pixels for individual ones of the pixels; and

processing circuitry configured to access the image data for pixels from each of the plurality of color sensor arrays, and using the accessed image data, to determine sub-pixel image data for the respective sub-pixels to form an image of an increased resolution compared with the initial resolution of the color sensor arrays.

2. [Original] The imaging apparatus of claim 1, wherein the arrays comprise a plurality of photodetectors at individual pixels to detect respective color components of light.

3. [Original] The imaging apparatus of claim 1, wherein each of the sub-pixels comprise red, green, and blue color components, and the plurality of color sensor arrays comprise red, blue, and green color sensor arrays.

4. [Original] The imaging apparatus of claim 3, wherein overlapping of the red, green, and blue color sensor arrays enables determination of the image data at an increased number of physical locations within the individual ones of the pixels to create an image of a higher resolution at a sub-pixel level.

5. [Original] The imaging apparatus of claim 1, wherein the increased resolution image is created by determining sub-pixel image data for individual pixels using the image data from each of the plurality of color sensor arrays.

6. [Original] The imaging apparatus of claim 1, wherein the offsetting of the color sensor arrays is performed by physically shifting the plurality of color sensor arrays in a desired direction.

7. [Previously Presented] The imaging apparatus of claim 1, wherein the optical device is configured to output the color components in a direction which is the same as a direction of travel of the received light.

8. [Previously Presented] The imaging apparatus of claim 1, wherein the optical device is a prism.

9. [Previously Presented] The imaging apparatus of claim 1, wherein the color sensor arrays are configured in an offset arrangement with respect to one another and with respect to a direction of travel of the received light.

10. [Previously Presented] An imaging apparatus comprising:

an image sensing means implemented as a single device, and including:

a plurality of color sensor arrays, individual sensor arrays comprising a plurality of sensor means for providing image data for a plurality of pixels of a respective color component at an initial resolution;

wherein individual ones of the sensor arrays are arranged elevationally over one another in a layered stack of the image sensing means for individually detecting red, green, and blue components of light, respectively;

wherein the plurality of sensor means of respective color sensor arrays are arranged in an offset relationship with respect to one another in the single device for defining a plurality of sub-pixels for individual ones of the pixels; and

processing means for accessing the image data for at least one pixel from each of the plurality of color sensor arrays, and using the accessed image data,

to form an image of an increased resolution compared with the initial resolution of the color sensor arrays.

11. [Previously Presented] The imaging apparatus of claim 10, wherein the offset is achieved by a shift of layers of the sensor means in the image sensing means.

15. [Original] The imaging apparatus of claim 10, wherein the sensor means are offset in a depthwise direction with respect to a direction of received light.

16. [Original] The imaging apparatus of claim 10, wherein the processing means comprises means for determining the sub-pixel image data for the respective sub-pixels of an individual pixel using the accessed image data of the respective individual pixel, and the processing means further comprises means for forming an image of the increased resolution.

17. [Previously Presented] An image data processing method comprising:

providing image data using an image sensor, and the providing comprising:

receiving light travelling in a direction using an optical device;

using the optical device, providing the light into a plurality of light components corresponding to different wavelengths of the light and outputting individual ones of the light components in the same direction of travel of the received light;

receiving the light components using a plurality of color sensor arrays of the image sensor, wherein the color sensor arrays have an initial resolution;

generating image data using the color sensor arrays; and

accessing the image data from each of the plurality of color sensor arrays; and

forming an image having an increased resolution compared with the initial resolution of the color sensor arrays using the accessed image data.

18. [Original] The method of claim 17, wherein the forming comprises:

determining sub-pixel image data from the accessed image data, and using the sub-pixel image data to form the image having increased resolution.

19. [Original] The method of claim 17, wherein the image having increased resolution is formed at a sub-pixel level.

20. [Previously Presented] The method of claim 17, wherein the color sensor arrays overlap and are offset with respect to one another in the direction of travel of the received light.

21. [Original] The method of claim 17, wherein the optical device is a prism.

22. [Original] The method of claim 17, wherein the optical device is a lens.

27. [Previously Presented] An article of manufacture comprising:

a processor-usable medium comprising processor-usable code configured to cause processing circuitry to perform processing comprising:

accessing image data for at least one pixel from each of a plurality of color sensor arrays at an initial resolution; and

forming an image of increased resolution, compared with the initial resolution of individual ones of the color sensor arrays, using the accessed image data, wherein the color sensor arrays are offset with respect to one another providing a plurality of image data values for at least one color component for a single pixel location and wherein a sum of the image data values comprising intensity values for a single color component for the single pixel location are equal to an intensity value of the accessed image data for the single color component for the single pixel location.

IX. EVIDENCE APPENDIX

Appellants submit no evidence with this appellate brief.

X. RELATED PROCEEDINGS APENDIX

Appellants are not aware of any related proceedings.